Clinical and Experimental Health Sciences

Comparison of the Healthy Lifestyle Behaviors of Resident Russian Women and Their Children in Antalya with Their Turkish Peers: A Descriptive Study

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ABSTRACT

Objective: The migration movement from Russia to Antalya is predominantly women and children. The aim of this research was to compare the healthy lifestyle behaviors of Russian women residing in Antalya and their primary school children with their Turkish peers.

Methods: This is descriptive comparative research. The study with a purposive sample method included students in grades 1-8 of one private Russian primary school and their mothers, as well as students from three private Turkish schools in the same region and their mothers to ensure similarity. 122 Turkish and 76 Russian mothers and child couples participated in the study. Russian women and Turkish peers completed Healthy Lifestyle Behaviors Scale and the International Physical Activity Questionnaire. The Nutritional Behavior Scale and the Child Physical Activity Questionnaire (CPAQ) were fulfilled by children.

Results: Russian women were better healthy lifestyle behaviors than Turkish peers in health responsibility ($z=-3,91$; $p<.05$), physical activity ($z=-3.13$; $p<.05$), nutrition ($z=-6.36$, $p<.05$), and interpersonal relations ($z=-2.98$, $p<.05$). Russian children consume more healthy food than their Turkish peers ($z=-3.53$, $p<.05$). There was no statistically significant difference between the mean CPAQ total score of Turkish and Russian children ($z=-1.32$, $p>.05$).

Conclusion: Russian women had higher indicators of a healthy lifestyle and physical activity level than Turkish women. Russian children were consuming more healthy foods than Turkish peers. Also, there was a positive relationship between the health behavior of children and their mothers. The effect of cultural background on the lifestyle behaviors of women and children should be examined in more detail.
Keywords: Women, child, healthy lifestyle, cross-cultural comparison, immigrant

1. INTRODUCTION

Due to its migration mobility, Turkey is the country where immigrants and refugees come both for settlement purposes and for transit to Europe (1-3). Among the foreigners residing in Antalya, Russians rank first with 16,724 people (4). It has also been pointed out that the transnational movement from Russia to Antalya is the migration of women and young people (4-7). Due to the high level of education, Russian women living in Antalya belong to the middle and high income groups. This differentiates them from the immigrant profile known to be disadvantaged.

Healthy lifestyles are collective patterns of health-related behaviour based on choices from options available to people (8). The four most common healthy lifestyle choices are not using alcohol use, not smoking, healthy nutrition, and exercise. Rest and relaxation, preventive health check-ups, and similar health-related activities also constitute healthy lifestyle choices. The higher the social class, the greater the range of lifestyle choices and the probability of realizing them; conversely, the lower the class, the more limited the choices and the lower the probabilities for realization. Age, gender, race/ethnicity, culture, families, friends, and communities also affect lifestyle choices (9). Children's activities of daily living, eating habits and obesity were found to be associated with parents' behaviors (10-12). It is supported by research that there are similarities and differences between Turkish and Russian cultures, although there are relative similarities between the two cultures, it has been determined that there are significant differences in daily life and eating habits (5, 6). According to, a social structure that nurtures and reinforces healthy lifestyles for the individual has not been established in Russia (13). Therefore, negative health lifestyles have become the norm for many people. Some reports documented this lifestyle as heavy smoking, low physical activity, and obesity. Among the causes of premature death in Russia, inactivity is the seventh factor of premature death causes. It is calculated

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that the level of physical activity in Russia decreased by 18%, and this data is estimated to be 32% in 2030 (14). In 2012, the Russian Ministry of Health published the recommendations of the World Health Organization (WHO) "to provide medical assistance to adults to optimize physical activity" (15). Despite this, the physical activity level of the population in Russia remains low. Other indicators of unhealthy lifestyle are obesity and smoking. According to WHO data, 59.8% of Russia's adult population (over 20 years old) are overweight and 26.5% are obese, and 11% of women in Russia smoke (16).

When the lifestyle behaviours of Turkish women were examined in various studies, it was determined that the lack of physical activity was the weakest lifestyle behaviour. Obesity and smoking are other unhealthy lifestyle problems in Turkish women. According to the Turkey Health Survey, in 2019 was reported 24.8% of women were obese and 30.4% were pre obese. In Turkey, the percentage of women who smoke every day increased from 13.3% in 2016 to 14.9 % in 2019 (17). According to these data, the rate of obesity and smoking is higher among Turkish women than adult Russian women.

Parents' lifestyle, behaviour, culture, nutrition, activity, problem-solving approach and similar activities affect their children (18). Studies have revealed that children's lifestyle behaviours are greatly influenced by their mothers; for example, mothers of obese children have been found to have higher body mass index (11, 12, 19). Parents play a vital role in preventing childhood obesity as they have a great influence on many of their children's behaviours such as diet, physical activity and sleep. Since children's behaviour is shaped through observation and adaptation, it is important for parents to lead and reinforce a healthy lifestyle (20).

Nurses in countries like Turkey that constantly accept immigrants are increasingly providing care to incoming individuals with different cultural backgrounds. For this reason, it is important to know the healthy lifestyle behaviours of immigrants from different cultures (21). In order to provide culturally adequate nursing care to individuals with different cultural backgrounds, nurses should be able to identify and understand the cultural similarities and differences of the individuals they care for, and then integrate the values and preferences of care recipients into their nursing care (22). The aim of this research is to compare the healthy lifestyle behaviour of Russian women residing in Antalya and their primary school aged children with their Turkish peers. The questions we seek answers to in this research;

1. Is there a difference between the healthy lifestyle behaviours of Russian and Turkish women living in Antalya?

2. Is there a difference between Russian and Turkish women in terms of physical activity level?

3. Is there a difference between the nutritional behaviours, physical activity levels, and obesity frequency of Russian and Turkish children?

4. Is there a relationship between the health behaviours of children and their mothers?

2. METHODS

2.1. Study Design and Sample

This descriptive comparative study was conducted in Antalya, Turkey in the spring semester of 2020-2021 academic year in four primary schools, one of which is a Russian school. The population of the research consists of children and their mothers enrolled in grades 1-8 in a Russian Primary School affiliated to the Directorate of National Education and three Turkish Primary Schools in Antalya. A purposive sample was used in this study. Those who accepted to participate in the study in a Russian and three Turkish schools were included. In the definition of Russian and Turkish women's nationality, it was taken into account that she had spent half of her life in the country where she was born. Forty out of the 116 Russian students who were eligible for the study, were not reached during the data collection phase due to the COVID-19 pandemic. So, in the Russian study group 65.5% of the population was reached. For comparison, it was aimed to take at least one time the number of Turkish students, and 1.6 times the number was reached with 122 women and child pair participants. The study was completed with 122 Turkish and 76 Russian mother-and-child couples.

2.2. Data Collection

At the time of data collection of the study, the data of both women and children were collected through an online survey, since distance education was started due to the COVID-19 Pandemic. Children completed the questionnaires under the supervision of their mothers. Questionnaires in Russian for Russian women and questionnaires in Turkish for Turkish women were created using the Google Drive program. Since the children knew Turkish, questionnaires in Turkish were used in both groups.

2.2.1. Data Collection Tools for Women

Women's age, education, employment status, height, weight and harmful habits were measured by self-report. Body Mass Index (BMI) calculated by researcher.

2.2.2. Healthy Lifestyle Behaviours Scale (HLBS) was developed in 1987 by Walker et al. Turkish **(HLBS-TR)** validity and reliability study of HLBS was performed (23). Its Russian adaptation **(HLBS-RU)** was made in 2018 by Petrash et al. The content, scoring and sub-dimensions of HLBS-TR and HLBS-RU are the same as the original scale. The scale consists of 52 items in total and has 6 sub-items, these are; health responsibility, physical activity, nutrition, spiritual development, interpersonal relationships and stress management. All items of the scale are positive. The rating is a four-point Likert scale; never = 1, sometimes = 2, often = 3, regularly =4. The lowest score for the whole scale is 52, and the highest score is 208. The increase in the score indicates healthy lifestyle behavior. Alpha coefficient reliability value of HLBS-TR is .94 and it varies between .79-.87 in sub-dimensions (23). Alpha coefficient reliability of HLBS-RU is

.94 and it varies between.79-.87 in sub-dimensions (24). In this study, the Cronbach's Alpha value of HLBS was found to be .97 for Turkish women and .96 for Russian women.

2.2.3. International Physical Activity Questionnaire (IPAQ) was developed in 2003 by Craig et al. IPAQ was subjected to a reliability and validity study carried out in 14 centres in 12 countries during the year 2000, and it was demonstrated that IPAQ have acceptable measurement properties for monitoring population levels of physical activity among 18 – to 65-year-old adults in diverse settings (25). The Turkish validity and reliability study was carried out in 2010 (26), and the Russian validity and reliability study was carried out in 2014 (27). The IPAQ short form consists of 7 questions and includes all kinds of physical activity (at work, travel time (walking or cycling), time spent for homework or in the garden, spare time activities / sports). In the evaluation, it is checked that all activities are performed for at least 10 minutes each. Physical activity levels; are classified as physically inactive (<600 MET-min/week), low physical activity level (600-3000 MET-min/week), and adequate physical activity level (>3000MET-min/week). A MET is 1 MET of body energy, which is equal to about 3.5 ml of oxygen consumption. The more the body works during the activity, the higher the MET value. When making calculations for IPAQ Short-Form, minutes, days and MET values (multiples of resting oxygen consumption) are multiplied and a score is obtained as MET-minute / week IP. The criterion validity for the Turkish short form r =.69 was reported (26).

2.2.4. Data Collection Tools for Children

Children's age, gender, height, weight and harmful habits were measured by self-report. BMI calculated by researcher.

Table 1. *Distribution of descriptive characteristics of Turkish and Russian women and their children*

Descriptive characteristics			Turkish (n=122)	Russian (n=76)	p
WOMEN'S descriptive features	Country of birth (n, %)		122 (%61.6)	76 (%38.4)	
	Age (Mean±SD)		41.25 ± 5.7	39.61 ± 5.6	.04[a*]
	Education (n, %) **	Primary school	1 (%50.0)	1 (%50.0)	.86[b]
		Secondary school	6 (%42.9)	8 (%57.1)	
		High school	19 (%70.3)	8 (%29.7)	
		University and above	96 (%61.9)	59 (%38.1)	
	Employment (n, %)	Working	90 (%72.0)	35 (%28.0)	.001[b*]
		Not working	32 (%43.9)	41 (%56.1)	
	Smoking (n, %)	Yes	41 (%70.6)	17 (%29.4)	.09[b]
		Now	81 (%57.8)	59 (%42.2)	
	BMI (n, %) ***	Underweight		3 (%100.0)	.006[b*]
		Normal	82 (%56.9)	62 (%43.1)	
		Overweight	37 (%88)	5 (%12)	
		Obese	3 (%33.3)	6 (%66.7)	
CHILDREN'S descriptive features	Country of birth (n, %)		137 (%69.2)	61 (%30.8)	
	Age (Mean±SD)		10.46 ± 2.86	10,99 ± 2.56	.34[a]
	Gender (n, %)	Male	68 (%65.3)	36 (%34.7)	.25[b]
		Female	54 (%57.4)	40 (%42.6)	
	Family type (n, %)	Nuclear family	107 (%66.4)	54 (%33.6)	.01[b*]
		Extended family	4 (%36.4)	7 (%63.6)	
		Broken family	11 (%42.4)	15 (%57.6)	
	Bad habits (n, %)	Yes	2 (%33.4)	4 (%66.6)	.14[b]
		No	120 (%62.5)	72 (%37.5)	
	BMI (n, %)***	Underweight	9 (%64.2)	5 (%35.8)	.08[b]
		Normal	54 (%54.5)	45 (%45.5)	
		Overweight	24 (%80.0)	6 (%20.0)	
		Obese	35 (%63.6)	20 (%36.4)	

*p <.05, **The analysis was made by making high school and below and University groups, ***Analysis was performed by excluding the underweight group. SD: standart deviation, BMI: Body Mass Index, [a]Mann Whitney U test, [b]Chi-square test*

Table 2. *Evaluation of the Healthy Lifestyle Behavior Scale and Physical Activity Questionnaire of Women*

Women's HLBS	Turkish (n=122) (Mean±SD)	Russian (n=76) (Mean±SD)	p, 95% confidence interval Cohen's d		
Health responsibility	23.50±5.43	26.28±4.53	**.000**[a]*	.82 – .82	.58
Physical activity	18.84±4.87	21.22±5.28	**.002**[a]*	.86– .86	.46
Nutrition	23.30±4.83	28.22±4.88	**.000**[a]*	.85 –.86	1.0
Spiritual development	25.86±6.05	25.93±5.21	.923[a]	.89 –. 89	
Interpersonal relations	25.42±5.36	27.72±4.48	**.003**[a]*	.86 – .86	.43
Stress management	20.554±4.39	20.54±5.56	.926[a]	.82 – .82	
HLBS Total Score	137.47±26.73	149.92±25.34	**.005**[a]*	.96 –.96	.40
Women's IPAQ	10.55±3.01	11.69±2.91	**.008**[a]*	.79 –.80	.39

**p<0.05, [a]Mann Whitney U test, HLBS: Healthy Lifestyle Behaviours Scale, SD: standart deviation, IPAQ: International Physical Activity Questionnaire*

2.2.5. Nutritional Behavior Scale (NBS) measures the heart health-promoting (low-fat and low-salt) food consumption habits of children and was developed within the scope of the CATCH project, which aims to improve heart health and reduce the risks of cardiovascular disease (28). The Turkish validity and reliability of the scale was performed (29). The NBS consists of a total of 14 items to be filled in by marking which of the two comparable foods the student ate the most. It gets – 1 for unhealthy food and +1 for healthy food. The total score ranges from – 14 to +14 points. A high total score indicates healthy eating habits. NBS's Kuder-Richardson 20 internal consistency was .68 and test-retest reliability was.74. The content validity index of the Turkish version of the scale was.96, the internal consistency reliability coefficient (Kuder-Richardson 20) .68, and the Russian version was .95 (30). In our study, it was found to be .95.

2.2.6. Child Physical Activity Questionnaire (CPAQ) was developed in 1997 by Kowalski et al (31) in order to determine the physical activity level of children. The Turkish adaptation of the CPAQ was made by Erdim and Ergün (32), and the Cronbach's Alpha value was found to be .86. CPAQ contains 10 items. It examines the physical activities of the child in the last seven days and the frequency of these activities. The CPAQ separately measures physical activity in spare time, school physical education classes, breaks, lunch break, after school, evenings, weekends and spare time. In addition, the days of the week that physical activity is performed and the situation that prevents physical activity are also evaluated. Each item of the CPAQ is evaluated on a 5-point scale. Low physical activity is indicated by "1" and high physical activity is indicated by "5". In the sample of this study, the reliability value was calculated as .92 for Turkish children and .90 for Russian children.

2.3. Data Analysis

Licensed SPSS (Statistical Package for Social Science) 23.0 program of Akdeniz University was used for statistical analysis of the data. In categorical data, comparison was made with Chi-Square, and in continuous data, since the data did not show normal distribution, analysis was made with the Man Whitney U test. A value of p<.05 was accepted as the level of significance. Cohen's d was calculated to evaluate the effect size of the difference between groups (https://www.psychometrica.de/effect_size.html). The relationship between the health behavior of women and children was made with Spearman Correlation.

Table 3. *Comparison of nutritional behaviors, physical activity and BMI averages of Turkish and Russian children*

Variables	Turkish (n= 122) (Mean±SD)	Russian (n=76) (Mean±SD)	p	Confidence interval	Cohen's d
NBS	1.45±0.15	1.53±0.11	**.000**[a]*	.95 –.95	.52
CPAQ					
PA in spare time	1.67±0.63	1.67±0.44	.25[a]	.88 –.88	
PA in physical education classes at school	3.20±1.26	3.26±1.33	.67[a]	.86 –.86	
PA at school breaks	2.95±1.39	3.12±1.49	.40[a]	.81 –.81	
PA at lunch breaks	3.02±1.28	2.64±1.51	**.05**[a]*	.82 –.82	.29
PA after school)	2.72±1.11	3.03±1.18	.08[a]	.80 –.81	
PA in the evenings	2.63±0.98	2.93±1.16	.06[a]	.80 –.85	
PA on the weekend	2.60±0.94	2.89±0.92	**.05**[a]*	.80 –.82	.29
PA done in spare time	2.29±0.99	2.63±1.07	**.02**[a]*	.80 –.82	.32
PA by days of the week	2.41±0.88	2.66±1.04	.19[a]	.89 –.89	
Situation that prevents PA	1.93±2.49	1.91±0.29	.49[a]	.83 –.83	
CPAQ Total	2.09±0.57	2.19±0.54	.19[a]	.91 –.91	
BMI Values	19.7±3.9	19.6±3.5	.96[a]	.80–.82	

**p<0.05, [a]Mann Whitney U test, SD: standart deviation, NBS: Nutritional Behavior Scale, CPAQ: Child Physical Activity Questionnaire, PA: Physical Activity, BMI: Body Mass Index,*

2.4. Ethical Aspects of the Study

The study was approved by both Akdeniz University's Clinical Research Ethical Board (22.07.2020 IRB number KAEK-571) and Directorate of Antalya National Education (01.09.2020-E.11784220). Informed consent was prepared in Russian for Russian participants and in Turkish for Turkish participants. If the participant gave his consent on the first page of the electronic questionnaires, other parts of the questionnaire were opened.

Table 4. *Relationship between Mothers' and Children's Nutritional Behavior Scale and Physical Activity Questionnaire Values®*

Variables		Mothers' Physical Activity Questionnaire, Nutrition and BMI values (N=198)			
		Physical Activity	Nutrition	IPAQ	BMI
Children's NBS, CPAQ and BMI values (N= 198)	NBS	.18*	.35**	.18*	-.02
	CAPQ total score	.20**	.29**	.20**	.10
	PA in spare time	.10	.17*	.21**	.10
	PA in physical education classes at school	.10	.20**	.14	.04
	PA at school breaks	.10	.18*	.14*	-.06
	PA at lunch breaks	.12	.07	.13	.01
	PA after school	.29**	.23**	.13	-.09
	PA in the evenings	.22**	.20**	.05	-.04
	PA on the weekend	.19**	.15*	.15*	-.06
	PA done in spare time	.13	.16	.15*	.03
	PA by days of the week	.14	.30**	.82**	.06
	Situation that prevents PA	-.04	-.06	.05	.03
	BMI	.01	-.03	-.07	.19**

*®Spearman correlation analysis *p<0.05; **p<0.01, NBS: Nutritional Behavior Scale, CPAQ: Child Physical Activity Questionnaire, PA: Physical Activity, BMI: Body Mass Index,*

3. RESULTS

It was found that Turkish and Russian women have the same level of education, the unemployment rate of Russian women is higher than that of their Turkish peers, and the level of smoking and overweight among Russian women is lower than that of their Turkish peers. Russian women were younger than Turkish peers. Among Russian children, the rate of those with broken families and harmful habits is higher than their Turkish peers. The rate of overweight and obese children is lower for Russian children than their Turkish peers (Table 1).

The difference between the HLBS mean scores of Turkish and Russian women was found to be statistically significant (z=-2.79; p<.05). It was seen that Turkish women got the highest score in the spiritual development sub-dimension (25.86±6.05) and the lowest score in the physical activity sub-dimension (18.84±4.83). It was seen that Russian women got the highest score from the nutrition sub-dimension (28.22±4.88) and the lowest score from the stress management sub-dimension (20.54±5.56). When the HLBS sub-dimensions of Turkish and Russian women were compared; the mean scores of Russian women in the health responsibility (z=-3.91; p<.05), physical activity (z=-3.13; p<.05), nutrition (z=-6.36, p<.05) and interpersonal relations (z=-2.98, p<.05) sub-dimensions were found to be higher than their Turkish peers, and the difference was statistically significant (p<.05). When the IPAQ mean scores of Turkish and Russian women were compared, it was found that the mean score of Russian women (11.69±2.91) was higher than their Turkish peers (10.55±3.01) and it was statistically significant (z=-2.66), p<.05) (Table 2).

The difference between the mean NBS scores of Turkish and Russian children was statistically significant (z=-3.53, p<.05). When compared in terms of healthy and unhealthy food consumption; it was found that Russian children (1.53±0.11) consumed more healthy food than their Turkish peers (1.45±0.15) and the difference was statistically significant. Turkish children's physical activity scores during lunch break are higher than their Russian peers. Russian children's physical activity scores at weekends and during spare time were higher than their Turkish peers. There was no statistically significant difference between the mean CPAQ total score of Turkish and Russian children (z=-1.32, p>.05) (Table 3).

Directly proportional weak correlation (r = – .35 was found between the feeding behaviors of the mothers and the feeding behaviors of the children, and directly proportional very weak correlation was found between the physical activity of the mothers (IPAQ) and the physical activity of the children (CPAQ). Directly proportional and strong relationship (r =.82) was found between the physical activity of the children according to the days of the week and the physical activity of their mothers. Directly proportional very weak correlation (r =.19) was determined between the BMI value of the children and the BMI value of the mothers (Table 4).

4. DISCUSSION

This study is the first to compare the healthy lifestyle of Russian women residing in Antalya and their primary school-aged children with their Turkish peers living in the same region. In our study population, all demographics except education level are different (Table 1). About three-quarters of both Turkish and Russian women had a university degree or higher. Russian women were slightly younger than their Turkish peers, and the rate of unemployed was high. The fact that the rate of unemployed Russian women is higher than their Turkish peers may be related to the fact that Russian women who work seasonally in the tourism sector define themselves as not working. Smoking and being overweight

are more common in Turkish women than in their Russian peers. The fact that the rate of smoking and being overweight among Russian women is lower than their Turkish peers differs from the profile of immigrant women. There are more studies reporting that smoking, being overweight, and obesity are more common among immigrant women (33-35). The good level of physical activity of the Russian women in our study group may explain their lower rate of being overweight. In addition, Russian women being a little younger may be associated with being less overweight. In our study, the smoking rate of Turkish women was found to be higher than their Russian peers. In Turkey, as the education level of women increases, the rate of smoking also increases (36). The education of the majority of Turkish women in our study group is university level. This profile explains the high rate of smoking among women in our study group.

The fact that geographical boundaries are not prohibitive and people move to other countries voluntarily or through forced migration can affect lifestyle and health behavior. In studies examining the profile of those who migrated to Antalya from Russia to work and live it was reported that the rate of women with a high education level working in the tourism sector is high (6,7). The voluntary emigration of Russian immigrants in Antalya due to better climate, living, and working conditions may make their profile different from the forced immigrant profile. As a matter of fact, the findings of this study show that the healthy lifestyle behaviors of settled Russian immigrant women and children are similar to or better than their Turkish peers (Table 2). Although there are many studies showing that immigrants' health behaviors are generally more negative in studies comparing immigrants to local people (37, 38) studies showing better or similar health behaviors are limited (39). This situation can be explained by the fact that the majority of the Russian women interviewed for this study, similar to their Turkish peers, are at a university or higher education level and they are in a high socio-economic class. The healthy lifestyle behavior of Russian women was better of their Turkish peers. This situation may be related that they voluntarily migrated to Antalya, had a well economic situation, and had been in Turkey for a longer period of time might be related. In this study, it was determined that Russian women with higher education levels had better health and lifestyle behaviors in general. In a study conducted in Russia (40), high adherence to a healthy lifestyle was associated with female gender, older age, urban residence, high educational status, and absence of family. Since the socio-demographic characteristics of the Russian women in our study also showed such a profile, they may have shown better healthy lifestyle behaviors. However, in our sample poor stress management in Russian women may have resulted from the difficulty in coping with the stressors brought on by immigration. This situation may have resulted from both the cultural differences between Turkish and Russian women as well as their immigration and settled life situation. The physical activity level of Russian women was found to be higher than their Turkish peers. It has been determined that the level of healthy lifestyle behavior of internal immigrant women in Turkey is lower (41). Otherwise, immigrant women with social security have healthier behavior. In the same studies, it was determined that migrant women got the highest score from the spiritual development sub-dimension and the lowest score from the physical activity dimension. The fact that the behaviors of women in studies (41) examining the profile of internally immigrated women in Turkey are similar to those of Turkish women in this study indicates that cultural behavior patterns are strong. In studies conducted in Russia (33-35) it has been observed that the healthy lifestyle behavior of Russian women is similar to the healthy lifestyle behavior of Russian women in this study. Similarly, in previous studies examining the healthy lifestyle behavior of Turkish women (42,43) the lowest behavior was physical activity, and the higher sub dimension was spiritual development which is consistent with the health behavior profiles of Turkish women in this study. The fact that Russian women show healthier behavior patterns than their Turkish peers within the scope of the study can be associated with socio-cultural behavior patterns. For example, professional participation in sports activities from childhood is common in Russian culture. This may be reflected in behavior in adulthood.

Among Russian children, the rate of those with broken families and harmful habits is higher than their Turkish peers (Table 1). This may be related to the separation in Russian-Turkish marriages due to differences in thought in Russian and Turkish cultures as it is stated in previously reported studies (6,7). Previous studies have reported that harmful habits are common among immigrant children (39, 44, 45). In this study, unlike the literature, there was no difference in the ratio of those with harmful habits between Russian and Turkish children. The rate of overweight and obese children is lower in Russian children than their Turkish peers. This situation is thought to be related to the fact that the Russian children interviewed for this study both show healthier eating behavior and that the level of their physical activity at the weekend and during spare time is higher than their Turkish peers (Table 3). In our study population, weekend and free time physical activity scores of Russian children were found the higher than the Turkish peers. In our study population, weekend and free time physical activity scores of Russian children were found the higher than the Turkish peers. In the study, it is thought that both Russian and Turkish children are at a similar socioeconomic level as they are taken from private schools in the same region. This difference may be due to cultural behavior patterns. It has been found that Russian children consume more healthy food than their Turkish peers. Although there was no difference in the total physical activity level of Russian and Turkish children, there was a difference in terms of the time period in which the activity was performed. Russian children's weekend and spare time physical activity scores were higher than their Turkish peers, and Turkish children's lunch break physical activity scores were higher than their Russian peers. This shows that Russian children make extra effort for physical activity during non-school time. Unlike this study, in studies investigating

the nutritional behavior of immigrant children and physical activity status, it has been observed that the nutritional and physical activity behavior of immigrant children are generally low (46, 47). This situation can be associated with the fact that the immigrant Russian children interviewed for this study belong to the upper socioeconomic class. Yet another reason may be the effect of starting professional sports activities at an early age in Russian life style. In addition, the fact that there is a positive relationship between mothers and children's physical activity in our study group shows the family's influence on daily life activities.

Directly proportional weak correlation was found between the nutritional behaviors, body mass index and physical activity of women and their children, and directly proportional strong correlation was found between the physical activity of women and the physical activity of their children according to the days of the week (Table 4). In the studies conducted, it was stated that the physical activity status of the mothers, the level of their knowledge about nutrition levels, their attitude and eating habits at home especially affect the general health status, nutrition and activity habits of school-aged children (48, 49). Within the scope of this study, the strong relationship between the physical activity of women and their children on certain days of the week may be related to the fact that mothers and children do physical activity together. According to another view, this can be explained by the fact that women who do physical activity plan activities for their children.

5. CONCLUSION

It was found that Russian women have higher indicators of a healthy lifestyle and physical activity level than Turkish women. It has been determined that Russian children consume more healthy food than Turkish children. Physical activity levels of Turkish and Russian children were similar. However, there was a difference in terms of time and place of physical activity. Turkish children were doing their total activity at school. Russian children, on the other hand, were performed their physical activities on the weekend and in their free time. It has been determined that there is a directly positive relationship between the health behavior of children and their mothers. In future, the lifestyle behaviors of Turkish and Russian immigrants, who are at a lower socioeconomic level, can also be examined. Also, the factors that motivate the healthy lifestyle behaviors of Russian immigrants living in Antalya might be examined. It is recommended to focus on the areas that need improvement in the nutritional behaviors of Turkish children, to carry out studies to gain healthy eating habits, and to re-evaluate the health behaviors of immigrants in the long term.

5.1. Limitation and Strength of the Study

Our data were based on participants' self-report. Therefore, it carries the risks of research using subjective data. Since face-to-face education was suspended in schools during the COVID-19 pandemic, the data of both women and children were collected with electronic questionnaires. On the other hand, the high reliability of measurement tools and the collection of women's data in their mother tongue through questionnaires eliminate this limitation. The education level of the majority of the Russian mothers included in this study is university level and their economic level is better than the general population because their children attend a paid private school. Therefore, it should be taken into account that the study represents a Russian immigrant group with only a high socioeconomic level.

Recommendations for practitioners

It is known that the number of temporary and permanent immigrants from Russia to Turkey has increased in recent years. The factors that push and attract people to migrate can change over time. For this reason, evaluating the healthy lifestyle behaviors of immigrants from every socioeconomic level who migrated for repulsive reasons is recommended. In order to provide culturally sensitive health care, health professionals should recognize the immigrant profile in society.

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